ABSTRACT

Apparatus and methods for performing spinal disc lesioning procedures while monitoring the temperature near the spinal nerve roots. A needle containing a thermocouple and an injection bore may be placed between the disc and a nerve root. Temperature near the nerve root may be monitored during the lesioning procedure and if raised to a point where damage to the nerve could occur, the procedure may be stopped before damage is done. Coolant may be injected through the injection bore to lower the temperature near the nerve root. Additional dual purpose needles may be placed on the disc adjacent the opposite nerve root or in the spinal canal at the level of the disc for additional control. A hollow, flexible tip electrode needle may be used to repair and lesion the disc tissue. Prior to lesioning, the electrode may be stimulated to assess motor nerve response and avoid motor nerve damage.